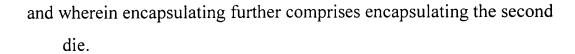
CLAIMS

What is claimed is:

- 1. A method for forming a semiconductor device, comprising:
 providing a package device having a first heat spreader, a package substrate overlying the first heat spreader, and a cavity extending through the package substrate and into the first heat spreader; attaching a first die to the first heat spreader within the cavity; attaching a second heat spreader to the first die; forming a plurality of electrical connections between the first die and the package substrate; and encapsulating the electrical connections, the first die, and at least a portion of the second heat spreader.
- 2. The method of claim 1, wherein the plurality of electrical connections comprise wire bonds from the first die to the package substrate.
- 20 3. The method of claim 1, further comprising:

 after attaching the first die to the first heat spreader, attaching a

 second die to the first die, wherein the second heat spreader is
 attached to the second die.
- 4. The method of claim 3, further comprising:
 forming a plurality of electrical connections between the second die
 and the package substrate,



- 5. The method of claim 4, further comprising forming at least one electrical connection between the second heat spreader and at least one of the first or the second die.
- 6. The method of claim 1, further comprising forming at least one electrical connection between the second heat spreader and the first die.
- 7. A semiconductor device, comprising:
 - a first heat spreader;
 - a cavity extending into the first heat spreader;
 - a first semiconductor die within the cavity; and
 - a second heat spreader overlying the first semiconductor die.
- 8. The semiconductor device of claim 7, further comprising a package substrate overlying the first heat spreader, wherein the cavity extends through the package substrate.
- 9. The semiconductor device of claim 8, further comprising a plurality of solder balls overlying the package substrate.
- 10. The semiconductor device of claim 8, further comprising a plurality of electrical connections between the first semiconductor die and the package substrate.

25

- 11. The semiconductor device of claim 10, further comprising an encapsulation layer encapsulating the plurality of electrical connections, the first semiconductor die, and at least a portion of the second heat spreader.
- 12. The semiconductor device of claim 7, further comprising:
 a second semiconductor die within the cavity, overlying the first
 semiconductor die and underlying the second heat spreader.
- 13. The semiconductor device of claim 12, wherein the second heat spreader is connected to the second semiconductor die via a first die attach and the second semiconductor die is connected to the first semiconductor via a second die attach.
- 14. The semiconductor device of claim 7, further comprising a die attach connecting the second heat spreader to the first semiconductor die.
- 15. The semiconductor device of claim 7, wherein the second heat spreader is soldered to a metal layer overlying the first semiconductor die.
- 16. The semiconductor device of claim 7, wherein the second heat spreader comprises a first portion and a second portion, the first portion closer to the first semiconductor die than the second portion, and wherein the first portion has a first surface area and the second portion has a second surface area that is less than the first surface area.

- 17. The semiconductor device of claim 16, wherein the first portion and the second portion are contiguous portions of the second heat spreader.
- 18. The semiconductor device of claim 16, further comprising:

 an electrical connection coupled to the first portion of the second heat

 spreader and the first semiconductor die.
- 19. A semiconductor device, comprising:
 - a semiconductor die having a first surface and a second surface, the semiconductor die comprising active circuitry within the first surface; and
 - a heat spreader connected to the first surface of the semiconductor die.
- 20. The semiconductor device of claim 19, wherein the heat spreader is connected to the first surface via a die attach layer.
- 21. The semiconductor device of claim 19, wherein the heat spreader is soldered to a metal layer overlying a portion of the first surface of the semiconductor die.
- 22. The semiconductor device of claim 19, further comprising:

 a second heat spreader underlying the second surface of the semiconductor die.
- 23. The semiconductor device of claim 22, wherein the first heat spreader provides a first heat dissipation path from the first semiconductor

device, and the second heat spreader provides a second heat dissipation path from the first semiconductor device.

- 24. The semiconductor device of claim 22, further comprising a second semiconductor device underlying the second surface of the semiconductor device and overlying the second heat spreader.
- 25. The semiconductor device of claim 24, wherein the second surface of the semiconductor device is attached to the second semiconductor device via a first device attach layer, and the second semiconductor device is attached to the second heat spreader via a second device attach layer.